

Project Title	Funding	Strategic Plan Objective	Institution
Dysregulation of mTOR signaling in fragile X syndrome	\$467,760	Q2.S.D	Albert Einstein College of Medicine of Yeshiva University
Modeling 5-HT-absorbing neurons in neuropathology of autism	\$200,400	Q2.Other	Albert Einstein College of Medicine of Yeshiva University
Monoallelic expression in neurons derived from induced pluripotent stem cells	\$404,100	Q2.Other	Albert Einstein College of Medicine of Yeshiva University
TMLHE deficiency and a carnitine hypothesis for autism	\$60,000	Q2.S.D	Baylor College of Medicine
The role of the new mTOR complex, mTORC2, in autism spectrum disorders	\$0	Q2.Other	Baylor College of Medicine
Motor cortex plasticity in MeCP2 duplication syndrome	\$125,000	Q2.S.D	Baylor College of Medicine
Neurobiology of aggression co-morbidity in mouse model of idic15 autism	\$261,000	Q2.S.E	Beth Israel Deaconess Medical Center
Neurobiological mechanism of 15q11-13 duplication autism spectrum disorder	\$367,304	Q2.S.D	Beth Israel Deaconess Medical Center
A cerebellar mutant for investigating mechanisms of autism in Tuberous Sclerosis	\$149,967	Q2.S.D	Boston Children's Hospital
Probing synaptic receptor composition in mouse models of autism	\$249,995	Q2.S.D	Boston Children's Hospital
Mechanisms Underlying the Cerebellar Contribution to Autism in Mouse Models of Tu	\$190,458	Q2.S.D	Boston Children's Hospital
MRI biomarkers of patients with tuberous sclerosis complex and autism	\$720,276	Q2.S.D	Boston Children's Hospital
Neuropeptide regulation of juvenile social behaviors	\$14,775	Q2.Other	Boston College
Elucidating the function of class 4 semaphorins in GABAergic synapse formation	\$325,130	Q2.Other	Brandeis University
Semaphorin4D and PlexinB1 mediate GABAergic synapse development in mammalian CNS	\$27,814	Q2.Other	Brandeis University
Role of endosomal NHE6 in brain connectivity and autism	\$62,500	Q2.Other	Brown University
Autism and the insula: Genomic and neural circuits	\$0	Q2.Other	California Institute of Technology
ERK signaling in autism associated with copy number variation of 16p11.2	\$0	Q2.Other	Case Western Reserve University
TrkB agonist therapy for sensorimotor dysfunction in Rett syndrome	\$141,976	Q2.S.D	Case Western Reserve University
Impact of NR2B mutations on NMDA receptors and synapse formation	\$60,000	Q2.Other	Case Western Reserve University
Phenotypic characterization of MECP2 mice	\$64,742	Q2.S.D	Children's Hospital of Philadelphia
The PI3K Catalytic Subunit p110delta as Biomarker and Therapeutic Target in Autism and Schizophrenia	\$0	Q2.Other	Cincinnati Children's Hospital Medical Center University of Cincinnati
Astrocyte function in genetic mouse models of autism spectrum disorders	\$394,063	Q2.S.D	Cleveland Clinic Lerner College of Medicine, Case Western Reserve University
Social brain circuits and fever-evoked response in 16p11.2 mice	\$87,500	Q2.Other	Cold Spring Harbor Laboratory

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Aberrant synaptic form and function due to TSC-mTOR-related mutation in autism spectrum disorders	\$150,000	Q2.S.D	Columbia University
Role of neurexin in the amygdala and associated fear memory	\$0	Q2.Other	Columbia University
Neurexin-neuroligin trans-synaptic interaction in learning and memory	\$100,000	Q2.Other	Columbia University
Investigation of a possible role of the protocadherin gene cluster in autism	\$150,000	Q2.Other	Columbia University
Phagocytosis is misregulated in a Drosophila model of Fragile X syndrome	\$47,232	Q2.S.D	Columbia University
New approaches to local translation: SpaceSTAMP of proteins synthesized in axons	\$401,927	Q2.S.D	Dana-Farber Cancer Institute
Transcriptional control of inhibitory synapse formation	\$353,295	Q2.Other	Dana-Farber Cancer Institute
The impact of Pten signaling on neuronal form and function	\$375,706	Q2.Other	Dartmouth College
Presynaptic Fragile X Proteins	\$249,000	Q2.S.D	Drexel University
Analysis of Shank3 complete and temporal and spatial specific knockout mice	\$408,192	Q2.Other	Duke University
The striatal circuitry underlying autistic-like behaviors	\$31,975	Q2.Other	Duke University
Dissecting Reciprocal CNVs Associated With Autism	\$0	Q2.Other	Duke University
Modulation of RhoA signaling by the mRNA binding protein hnRNPQ1	\$30,912	Q2.S.D	Emory University
Molecular mechanisms of electrical synapse formation in vivo	\$90,000	Q2.Other	Fred Hutchinson Cancer Research Center
Elucidation and rescue of amygdala abnormalities in the Fmr1 mutant mouse model of fragile X syndrome	\$0	Q2.S.D	George Washington University
Urokinase-type plasminogen activator plasma concentration and its relationship to hepatocyte growth factor (HGF) and GABA levels in autistic children	\$0	Q2.Other	Hartwick College
To Determine Epidermal growth factor (EGF) and EGF Receptor Plasma Concentration and It's Relationship to Hepatocyte Growth Factor (HGF), GABA Levels and Symptom Severity in Autistic Children	\$4,500	Q2.S.A	Hartwick College
The role of UBE3A in autism	\$250,001	Q2.S.D	Harvard Medical School
Protein interaction networks in autism	\$62,500	Q2.Other	Harvard Medical School
A novel essential gene for human cognitive function	\$47,232	Q2.S.D	Harvard Medical School
Analysis of MEF2 in cortical connectivity and autism-associated behaviors	\$49,214	Q2.S.D	Harvard Medical School
Multigenic basis for autism linked to 22q13 chromosomal region	\$250,000	Q2.S.D	Hunter College of the City University of New York (CUNY) jointly with Research Foundation of CUNY
Olfactory abnormalities in the modeling of Rett syndrome	\$339,270	Q2.S.D	Johns Hopkins University

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Dynamic regulation of Shank3 and ASD	\$604,587	Q2.Other	Johns Hopkins University
The role of the GRIP protein complex in AMPA receptor trafficking and autism spectrum disorders	\$15,000	Q2.Other	Johns Hopkins University
Why are autistic females rare and severe? An approach to autism gene identification.	\$28,600	Q2.S.B	Johns Hopkins University
High throughput screen for small molecule probes for neural network development	\$388,800	Q2.Other	Johns Hopkins University
Role of LIN28/let-7 axis in autism	\$62,500	Q2.Other	Johns Hopkins University School of Medicine
Autism phenotypes in Tuberous Sclerosis: Risk factors, features & architecture	\$149,999	Q2.S.D	King's College London
Roles of miRNAs in regulation of Foxp2 and in autism	\$15,000	Q2.Other	Louisiana State University
Analysis of autism linked genes in C. elegans	\$62,500	Q2.Other	Massachusetts General Hospital
Retrograde synaptic signaling by Neurexin and Neuroligin in C. elegans	\$125,000	Q2.Other	Massachusetts General Hospital
Molecular signatures of autism genes and the 16p11.2 deletion	\$62,500	Q2.Other	Massachusetts General Hospital
Translational dysregulation in autism pathogenesis and therapy	\$125,000	Q2.S.D	Massachusetts General Hospital
MicroRNAs in synaptic plasticity and behaviors relevant to autism	\$131,220	Q2.S.D	Massachusetts General Hospital
Shank3 in synaptic function and autism	\$385,200	Q2.Other	Massachusetts Institute of Technology
Using Drosophila to characterize the molecular pathogenesis of autism	\$234,000	Q2.Other	Massachusetts Institute of Technology
Imaging signal transduction in single dendritic spines	\$449,208	Q2.Other	Max Planck Florida Corporation
Perturbation of Excitatory Synapse Formation in Autism Spectrum Disorders	\$0	Q2.Other	Max Planck Florida Institute for Neuroscience
Functional analysis of EPHB2 mutations in autism	\$124,950	Q2.Other	McLean Hospital
Connections between autism, serotonin and hedgehog signaling	\$124,401	Q2.S.D	Medical Research Council-National Institute for Medical Research
CNTNAP2 regulates production, migration and organization of cortical neurons	\$62,496	Q2.Other	Memorial Sloan-Kettering Cancer Center
Role of Sema7A in functional organization of neocortex	\$366,120	Q2.S.D	Mount Sinai School of Medicine
Probing the Molecular Mechanisms Underlying Autism: Examination of Dysregulated Protein Synthesis	\$49,300	Q2.S.D	National Institute of Mental Health (NIH)
Dysregulation of protein synthesis in fragile X syndrome	\$1,089,880	Q2.S.D	National Institutes of Health
Dysregulated Translation and Synaptic Dysfunction in Medium Spiny Neurons of Autism Model Mice	\$0	Q2.Other	New York University
Translation, synchrony, and cognition	\$375,588	Q2.S.D	New York University

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Interneuron subtype-specific malfunction in autism spectrum disorders	\$120,000	Q2.Other	New York University School of Medicine
Regulation of cortical critical periods in a mouse model of autism	\$0	Q2.S.D	Northwestern University
A family-genetic study of autism and fragile X syndrome	\$593,966	Q2.S.D	Northwestern University
DISRUPTION OF TROPHIC INHIBITORY SIGNALING IN AUTISM SPECTRUM DISORDERS	\$180,832	Q2.Other	Northwestern University
Neurexins, oxidative stress and autism	\$150,000	Q2.Other	Oklahoma Medical Research Foundation
Sex-Specific Gene-Environment Interactions Underlying ASD	\$35,000	Q2.S.B	Rockefeller University
Dissecting neural mechanisms integrating multiple inputs in C. elegans	\$477,449	Q2.Other	Salk Institute for Biological Studies
Engrailed genes and cerebellum morphology, spatial gene expression and circuitry	\$451,202	Q2.Other	Sloan-Kettering Institute for Cancer Research
Revealing protein synthesis defects in fragile X syndrome with new chemical tools	\$337,091	Q2.S.D	Stanford University
Function and dysfunction of neuroligins in synaptic circuits	\$450,000	Q2.Other	Stanford University
Function of neuroligins	\$461,977	Q2.Other	Stanford University
Role of CNTNAP2 in neuronal structural development and synaptic transmission	\$55,200	Q2.Other	Stanford University
Neurobiology of RAI1, the causal gene for Smith-Magenis syndrome	\$62,314	Q2.S.D	Stanford University
Mesocorticolimbic dopamine circuitry in mouse models of autism	\$349,295	Q2.S.D	Stanford University
Frontostriatal synaptic dysfunction in a model of autism	\$52,190	Q2.Other	Stanford University
Role of neuroligin in synapse formation and maintenance	\$53,942	Q2.Other	Stanford University
Investigating the role of neuroligin-1 mutation in autism using human induced neuro	\$49,214	Q2.Other	Stanford University
Restoring cortical plasticity in a Rett mouse model	\$60,000	Q2.S.D	Stanford University
NINDS comment: Disruption of Reelin biosynthesis by de novo missense mutations found in aut	\$32,615	Q2.Other	State University of New York Upstate Medical Center
Mouse Model of Dup15q Syndrome	\$84,253	Q2.S.D	Texas AgriLife Research
RNA dysregulation in autism	\$250,000	Q2.Other	The Rockefeller University
Cell adhesion molecules in CNS development	\$515,850	Q2.Other	The Scripps Research Institute - California
A stem cell based platform for identification of common defects in autism spectrum disorders	\$0	Q2.S.D	The Scripps Research Institute - California
Impact of SynGAP1 mutations on synapse maturation and cognitive development	\$661,570	Q2.Other	The Scripps Research Institute - Florida

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Understanding the basic neurobiology of Pitt-Hopkins syndrome	\$0	Q2.S.D	The University of Alabama at Birmingham
MeCP2 modulation of BDNF signaling: Shared mechanisms of Rett and autism	\$303,067	Q2.S.D	University of Alabama at Birmingham
Met signaling in neural development and circuitry formation	\$230,032	Q2.Other	University of Arizona
Autism Linked LRRTM4-Heparan Sulphate Proteoglycan Complex Functions in Synapse Development	\$0	Q2.S.G	University of British Columbia
Inhibitory mechanisms for sensory map plasticity in cerebral cortex	\$316,453	Q2.Other	University of California, Berkeley
The role of MeCP2 in Rett syndrome	\$344,213	Q2.S.D	University of California, Davis
Project 4: Calcium signaling defects in autism (Pessah/Lein)	\$109,730	Q2.Other	University of California, Davis
Mechanism of UBE3A imprint in neurodevelopment	\$7,869	Q2.S.D	University of California, Davis
a-Actinin Regulates Postsynaptic AMPAR Targeting by Anchoring PSD-95	\$0	Q2.Other	University of California, Davis
a-Actinin Regulates Postsynaptic AMPAR Targeting by Anchoring PSD-95	\$0	Q2.Other	University of California, Davis Medical Center University of California, Davis
Dual modulators of GABA-A and Alpha7 nicotinic receptors for treating autism	\$0	Q2.Other	University of California, Irvine
BDNF and the restoration of synaptic plasticity in fragile X and autism	\$449,134	Q2.S.D	University of California, Irvine
Cortactin and spine dysfunction in fragile X	\$32,875	Q2.S.D	University of California, Irvine
Investigation of sex differences associated with autism candidate gene, Cyfip1	\$32,413	Q2.S.B	University of California, Los Angeles
Modeling multiple heterozygous genetic lesions in autism using Drosophila melanogaster	\$201,838	Q2.Other	University of California, Los Angeles
The role of Fox-1 in neurodevelopment and autistic spectrum disorder	\$145,757	Q2.S.D	University of California, Los Angeles
A functional genomic analysis of the cerebral cortex	\$486,802	Q2.Other	University of California, Los Angeles
Optogenetic treatment of social behavior in autism	\$385,000	Q2.Other	University of California, Los Angeles
A Role for Cytoplasmic Rbfox1/A2BP1 in Autism	\$0	Q2.Other	University of California, Los Angeles
Cytoplasmic functions of Rbfox1, a candidate autism gene	\$231,000	Q2.Other	University of California, Los Angeles
Kinetics of drug macromolecule complex formation	\$687,969	Q2.Other	University of California, San Diego
Using fruit flies to map the network of autism-associated genes	\$124,996	Q2.Other	University of California, San Diego
Characterizing the regulatory pathways and regulation of AUTS2	\$0	Q2.Other	University of California, San Francisco

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A novel transplantation assay to study human PTEN ASD alleles in GABAergic interneurons	\$60,000	Q2.Other	University of California, San Francisco
Role of negative regulators of FGF signaling in frontal cortex development and autism	\$15,000	Q2.Other	University of California, San Francisco
Deciphering the function and regulation of AUTS2	\$0	Q2.Other	University of California, San Francisco
Cerebellar plasticity and learning in a mouse model of autism	\$62,500	Q2.Other	University of Chicago
Physiological studies in a human stem cell model of 15q duplication syndrome	\$60,000	Q2.S.D	University of Connecticut
Beta-catenin signaling in autism spectrum disorders	\$60,100	Q2.S.G	University of Illinois at Chicago
Synaptic phenotype, development, and plasticity in the fragile X mouse	\$379,329	Q2.S.D	University of Illinois at Urbana Champaign
Molecular dissection of calmodulin domain functions	\$310,222	Q2.Other	University of Iowa
Wnt modulation as a treatment for autism spectrum disorders	\$184,568	Q2.Other	University of Iowa
Foxp2 regulation of sex specific transcriptional pathways and brain development	\$88,128	Q2.S.B	University of Maryland, Baltimore
The microRNA pathway in translational regulation of neuronal development	\$340,304	Q2.S.D	University of Massachusetts Medical School
Caspr2 as an autism candidate gene: A proteomic approach to function & structure	\$305,280	Q2.Other	University of Medicine & Dentistry of New Jersey - Robert Wood Johnson Medical School
Investigating the Role of RBFOX1 in Autism Etiology	\$0	Q2.Other	University of Miami
Novel candidate mechanisms of fragile X syndrome	\$249,000	Q2.S.D	University of Michigan
Molecular mechanisms of the synaptic organizer alpha-neurexin	\$373,200	Q2.Other	University of Michigan
Matrix metalloproteinases expression in autism spectrum disorders	\$15,000	Q2.Other	University of Naples
A Novel Glial Specific Isoform of Cdkl5: Implications for the Pathology of Autism in Rett Syndrome	\$0	Q2.S.D	University of Nebraska Medical Center
Modeling Pitt-Hopkins Syndrome, an Autism Spectrum Disorder, in Transgenic Mice Harboring a Pathogenic Dominant Negative Mutation in TCF4	\$0	Q2.S.D	University of North Carolina, Chapel Hill
Functional and anatomical recovery of synaptic deficits in a mouse model of Angelman Syndrome	\$58,000	Q2.S.D	University of North Carolina at Chapel Hill
Bi-directional regulation of Ube3a stability by cyclic AMP-dependent kinase	\$60,000	Q2.S.D	University of North Carolina at Chapel Hill
Regulation of spine morphogenesis by NrCAM	\$213,120	Q2.Other	University of North Carolina at Chapel Hill
Effect of paternal age on mutational burden and behavior in mice	\$177,600	Q2.Other	University of North Carolina at Chapel Hill
RNA expression at human fragile X synapses	\$59,217	Q2.S.D	University of North Carolina at Chapel Hill and North Carolina State University

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The role of genetics in communication deficits in autism spectrum disorders	\$0	Q2.S.D	University of Pennsylvania
Transcriptional responsiveness in lymphoblastoid cell lines	\$0	Q2.Other	University of Pennsylvania
Engrailed targets and the control of synaptic circuits in Drosophila	\$361,875	Q2.Other	University of Puerto Rico Medical Sciences Campus
Biology of non-coding RNAs associated with psychiatric disorders	\$430,144	Q2.Other	University of Southern California
Function and structure adaptations in forebrain development	\$520,098	Q2.Other	University of Southern California
Genetic studies of autism-related Drosophila neurexin and neuroligin	\$175,802	Q2.Other	University of Texas Health Science Center, San Antonio
Investigation of protocadherin-10 in MEF2- and FMRP-mediated synapse elimination	\$55,670	Q2.S.D	University of Texas Southwestern Medical Center
Mechanisms of synapse elimination by autism-linked genes	\$240,115	Q2.S.D	University of Texas Southwestern Medical Center
Mechanisms of mGluR5 function and dysfunction in mouse autism models	\$393,841	Q2.S.D	University of Texas Southwestern Medical Center
Role of MEF2 and neural activity in cortical synaptic weakening and elimination	\$415,385	Q2.S.D	University of Texas Southwestern Medical Center
Translational regulation of adult neural stem cells	\$359,977	Q2.S.D	University of Wisconsin - Madison
Macrocephalic autism: Exploring and exploiting the role of PTEN	\$0	Q2.Other	University of Wisconsin - Madison
Fragile X syndrome target analysis and its contribution to autism	\$259,025	Q2.S.D	Vanderbilt University
Genetic and developmental analyses of fragile X mental retardation protein	\$378,771	Q2.S.D	Vanderbilt University Medical Center
mTOR modulation of myelination	\$178,659	Q2.S.D	Vanderbilt University Medical Center
Role of neuronal migration genes in synaptogenesis and plasticity	\$53,942	Q2.Other	Weill Cornell Medical College
High metabolic demand of fast-spiking cortical interneurons underlying the etiology of autism	\$56,000	Q2.Other	Weill Cornell Medical College
Pathogenic roles of paternal-age-associated mutations in autism	\$62,500	Q2.Other	Weill Cornell Medical College
Genetic model to study the ASD-associated gene A2BP1 and its target PAC1	\$125,000	Q2.Other	Weizmann Institute of Science
Studying Rett and Fragile X syndrome in human ES cells using TALEN technology	\$30,000	Q2.S.D	Whitehead Institute for Biomedical Research
Genetically defined stem cell models of Rett and fragile X syndrome	\$350,000	Q2.S.D	Whitehead Institute for Biomedical Research
Allelic choice in Rett syndrome	\$374,862	Q2.S.D	Winifred Masterson Burke Medical Research Institute

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Morphogenesis and function of the cerebral cortex	\$393,228	Q2.Other	Yale University
Functional analysis of EPHB2 mutations in autism - Project 1	\$89,633	Q2.Other	Yale University
Identification of candidate genes at the synapse in autism spectrum disorders	\$168,245	Q2.S.G	Yale University
Role of major vault protein in autism	\$0	Q2.Other	Yale University
Functional analysis of EFR3A mutations associated with autism	\$62,500	Q2.Other	Yale University
Pleiotropic roles of dyslexia genes in neurodevelopmental language impairments	\$36,724	Q2.S.D	Yale University
Role of GABA interneurons in a genetic model of autism	\$62,500	Q2.S.D	Yale University

